Montana Healthcare Workers Immunization Toolkit

This portion of the Montana Immunization Website is for facilities, organizations, and community providers of health care with an interest in increasing influenza and other vaccine preventable vaccination rates among their employees to protect them from getting influenza and other vaccine preventable diseases and passing it on to their clients, co-workers and families. This may include, but is not limited to:

- Hospitals
- Local health departments
- Skilled nursing facilities
- Private physicians' offices
- Home Health Nursing Agencies
- Senior housing
- Adult day care services
- Continuing care retirement communities
- Any provider of health care services and or staff who serve persons at risk from complications of influenza.

Please use this toolkit to enhance your facility's efforts to increase influenza and other vaccinations among health care workers. This list directs you to highlights of documents that may be helpful in developing campaigns to promote vaccinations among health care workers. These documents can be obtained at the websites indicated.

Resources and Strategies

Improving Influenza Vaccination Rates in Health Care Workers
http://www.nfid.org/pdf/publications/hcwmonograph.pdf)
- Page 8 Introduction to Call to Action
- Page 9 Keys to Improving Health Care Worker Vaccination Rates
- Pages 10-12 Impact of Influenza among Health Care Workers
- Pages 15-17 Strategies to Increase Vaccination Rates

MassMed Employee Flu Immunization Campaign Kit
(Link available through http://edcp.org/html/hcw_initiative.cfm)
- Page 12 Assessment Worksheet
- Page 18 Influenza Campaign Poster

- Page 23 “Why People Don’t Get Vaccinated”
- Page 26 Tips for Planning a Kick-Off Event
- Page 27 Tips for Making Flu Campaigns Fun
- Page 30 Operating Clinics and Tracking Progress
- Page 32 Vaccine Administration Record
- Page 34 Sample Vaccine Declination Tracking Form
- Page 37 Celebrate Success and Plan for Next Year

CDC 2009-2010 Influenza Prevention & Control Recommendations Additional Information about Vaccination of Specific Population
http://www.cdc.gov/FLU/PROFESSIONALS/acip/specificpopulations.htm

CDC Flu Information for Health Care Professionals:
http://www.cdc.gov/flu/professionals/

CDC Updated Infection Control Measures for the Prevention and Control of Influenza in Health-Care Facilities:
http://www.cdc.gov/flu/professionals/infectioncontrol/healthcarefacilities.htm

CDC Updated Infection Control Measures for Preventing and Controlling Influenza Transmission in Long Term Care Facilities:
http://www.cdc.gov/flu/professionals/infectioncontrol/longtermcare.htm

FIRST do no harm

Influenza Vaccination of Health-Care Personnel: Recommendations of the Healthcare Infection Control Practices Advisory Committee (HICPAC) and the Advisory Committee on Immunization Practices (ACIP):
http://www.cdc.gov/MMWR/preview/mmwrhtml/rr5502a1.htm; February 24, 2006.

Immunization Action Coalition: www.immunize.org

Immunization of Health Care Workers: Recommendations of the Advisory Committee on Immunization Practices (ACIP) and the Hospital Infection Control Practices Advisory Committee (HICPAC) Found in MMWR, Recommendations and Reports, December 26, 1997, 46(RR-18); 1-42. http://www.cdc.gov/mmwr/PDF/rr/rr4618.pdf

Immunization Action Coalition: Healthcare Personnel Vaccination Recommendations
www.immunize.org/catg.d/p2017. Information last reviewed on 7/08

United States Department of Veterans Affairs VA Influenza Vaccination Toolkit:
http://www.prevention.va.gov/docs/vainfluenzamanual_0809.pdf

Letter from Debra Wexler MD from Immunization Action Coalition *Vaccinate Adults! News Letter*

Health professionals can spread disease. Make sure you're vaccinated!

Dear Colleagues,

If you're like most people who work in medicine, your patients' well-being is of primary concern to you. Yet every year more than 200,000 MDs and RNs needlessly expose their patients to the influenza virus. Are you one of them?

According to CDC, only 34% of MDs and RNs get vaccinated annually against influenza. This means that over 2.3 million MDs and RNs are unvaccinated and at risk not only for contracting influenza but also for passing it on to others. On average, 20,000 people die annually in the U.S. from influenza or its complications. Some of these cases are unwittingly passed from health professionals to their patients.

Why are so many of us unvaccinated? According to surveys, here are some reasons:

I don't get sick and I never get influenza.

About 10–25% of people get influenza each year, and health professionals are not exempt. Many of us develop only mild symptoms of the disease, so we often don't get a florid influenza syndrome. But even with minimal symptoms, we can still transmit the full-blown illness to our patients. Health professionals are notorious for going to work even when sick. With mild illness—scratchy throats, muscle aches—we talk with patients, check blood pressures, examine throats. We breathe the air. We infect others with respiratory viruses.

I'm not in a risk group.

If you are a healthy person under the age of 50, you might not be in an influenza risk group, but as a health professional, you put other people at risk. Unvaccinated health care workers put hundreds of others at risk for influenza. Our patients can get infected, need to be hospitalized, and even die from influenza. The only acceptable reason for your not being vaccinated is a valid medical contraindication. By not getting vaccinated against influenza, you endanger the lives of others.

I forget to get vaccinated or don't have time.

No time? Plan ahead to make the time next fall. Make influenza vaccination a priority for all the employees in your practice or hospital. Establish a system so that everyone is vaccinated against influenza free of charge every year and no one forgets.

I'm concerned about vaccine side effects.
The most common side effect from influenza vaccine is arm soreness. Two recent studies demonstrated that influenza vaccine caused no significant difference in systemic side effects (fever, headache, fatigue, myalgias) when compared to placebo injection. (Margolis, KL et al.,*JAMA.* 1990; 264: 1339–1141. Nichol, KL et al., *Arch Intern Med.* 1996; 156:1546–1550.)

All clinics, hospitals, and long-term care facilities should require that their employees receive influenza vaccine and provide it free of charge. While the investment may seem high, in the long run, it often offers a cost savings to society and **it saves lives.** If your facility doesn't have a system in place to vaccinate all staff members, now is the time to start planning.

Make sure you get vaccinated every year and that all staff members in your facility do too. Make it a requirement. Once a year. It's so simple. . And it's lifesaving. After all, isn't this what medicine is all about?
Deborah L. Wexler, MD

Executive Director

First do no harm

Protect patients by making sure all staff receive yearly influenza vaccine!

Healthcare employers are not only strongly encouraged to increase their employees' influenza immunization rates, in some instances, their organization's accreditation depends on it! The Centers for Disease Control and Prevention (CDC) published recommendations for healthcare settings, and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has established influenza infection control standards.

Big changes have taken place in influenza vaccination of healthcare personnel: The responsibility for increasing the rates of HCW influenza vaccination is rapidly shifting from the employee to the employer.
What's happened?
At CDC: In February 2006, CDC published "*Influenza Vaccination of Health-Care Personnel*" These recommendations "apply to HCP in acute care hospitals, nursing homes, skilled nursing facilities, physician offices, urgent care centers, and outpatient clinics, and to persons who provide home healthcare and emergency medical services."They were issued jointly by HICPAC (the Healthcare Infection Control Practices Advisory Committee) and ACIP (the Advisory Committee on Immunization Practices).
To obtain a copy of the complete recommendations, go to:
www.cdc.gov/mmwr/PDF/rr/rr5502

At JCAHO: In January 2007, a new infection control standard of JCAHO (the Joint Commission on Accreditation of Healthcare Organizations) became effective that requires accredited organizations to offer influenza vaccinations to staff, volunteers, and licensed independent practitioners who have close patient contact. The standard is an accreditation requirement for the Critical Access Hospital, Hospital and Long Term Care accreditation
programs. To access the standard, go to www. Jcrinc.com/12889 (for critical access hospitals), www.jcrinc.com/12862 (for hospitals), or www. jcrinc.com/12882 (for long-term care).

Why is it happening?
The short answer is because HCP influenza vaccination rates remain appallingly low, and unvaccinated HCP are infecting vulnerable patients with influenza. Fewer than 45% of HCP are immunized against influenza each year, even though ACIP has urged annual influenza vaccination for HCP since 1981. Further, influenza transmission has been documented among patients in a variety of clinical settings, and infections have been linked to unvaccinated HCP. Clearly, we are doing our patients harm. The full document can be retrieved from www.immunize.org/catg.d/p2014.pdf

Vaccines and Preventable Diseases:

Varicella Vaccine, MMR Vaccine, Hepatitis B, Tdap- Q&As about Healthcare Providers

Clinical Questions and Answers

Does ACIP recommend varicella vaccination of healthcare providers (HCPs)?
ACIP, with support by the Hospital Infection Control Practices Advisory Committee (HICPAC), recommends that healthcare institutions ensure that all healthcare providers have evidence of immunity to varicella. For healthcare providers, evidence of immunity includes any of the following:

- Documentation of two doses of varicella vaccine;
- Blood tests showing immunity to varicella or laboratory confirmation of prior disease; or
- Receipt from a healthcare provider of a) a diagnosis of chickenpox or herpes zoster (shingles); or b) verification of a history of chickenpox or herpes zoster (shingles).

Birth before 1980 **is not** considered evidence of immunity for HCPs because of the potential for nosocomial transmission of varicella to high-risk patients.
Healthcare institutions should establish protocols and recommendations for screening and vaccinating HCPs and for management of HCPs after exposure in the workplace.

Should HCPs be tested for varicella zoster virus (VZV) immunity prior to vaccination?

Serologic screening before vaccination of personnel who have negative or uncertain history of varicella disease is likely to be cost effective. Most adults (70-90%) who do not remember having chickenpox actually have protection in their blood when tested. Institutions may elect to test all HCPs regardless of disease history because a small proportion of persons with a positive history of disease might be susceptible. The tests most widely used to detect varicella IgG antibody after natural varicella infection among HCPs are latex agglutination (LA) and ELISA. Although the LA test is generally more sensitive than commercial ELISAs, a recent report indicated that the LA test can produce false-positive results, particularly when only a single concentration of serum is evaluated.

Therefore, for the purpose of screening HCPs for varicella susceptibility, a less sensitive and more specific commercial ELISA should be considered.

Should HCPs be tested after vaccination to ensure that they are immune?

The ACIP and HICPAC do not recommend routine testing of HCPs for varicella immunity after two doses of vaccination in all instances. Sensitive tests have indicated that 99% of adults develop antibodies after the second dose. However, seroconversion does not

always result in full protection against disease, and no data regarding correlates of protection are available for adults.
http://www.cdc.gov/print.do?url=http://www.cdc.gov/vaccines/vpd-vac/varicella/vac-faqs-clinic-hcp.htm

Are recently vaccinated HCPs at risk for transmitting vaccine virus to susceptible persons?
The risk of transmission of vaccine virus from persons who develop a varicella-like rash after vaccination is low, and has been documented only after exposures in households and long term care facilities. No cases have been documented after vaccination of HCPs. Moreover, the benefits of vaccinating HCPs who do not have evidence of immunity outweigh this extremely low potential risk.
As a safeguard, precautions should be taken for personnel who develop rash after vaccination. These individuals should avoid contact with persons without evidence of immunity who are at risk for severe disease and complications until all lesions resolve (i.e., crusted over or fade away) or no new lesions appear within a period of 24 hours.

How should vaccinated HCPs be managed after exposure to natural varicella?
Exposed HCPs who have received 2 doses of vaccine should be monitored daily during days 10-21 after exposure through the employee health program or by an infection control nurse to determine clinical status (i.e., daily screening for fever, skin lesions, and systemic symptoms). They should also be instructed to report any symptoms as they occur without delay. If symptomatic, HCPs should be placed on sick leave immediately. Exposed HCPs who have received 1 dose of vaccine and who are exposed to VZV should receive the second dose of vaccine within 3-5 days post exposure to rash
(provided 4 weeks have elapsed after the first dose). After vaccination, management is similar to that of 2-dose vaccine recipients described above.

What is recommended for unvaccinated HCPs without evidence of immunity who are exposed to natural varicella?
Unvaccinated HCPs who have no evidence of immunity and are exposed to natural varicella are potentially infective from days 10-21 after exposure and should be furloughed during this period. Post exposure vaccination is recommended within 3-5 days of exposure to rash, since it may attenuate the disease substantially if infection occurred. If the exposure did not cause infection, vaccination more than 5 days after exposure is still indicated as it induces protection against subsequent infection.
Content Source: National Center for Immunization and Respiratory Diseases.http://www.cdc.gov/vaccines/vpd-vac/varicella/vac-faqs-clinichcp.htm

What is the recommendation for MMR vaccine for healthcare workers?

All persons who work in a medical facility should have evidence of immunity to measles and rubella. For most persons born after 1956, this means documentation of two doses of MMR vaccine, or serologic evidence of measles and rubella immunity. Persons born before 1957 can generally be considered immune to all three diseases, but age does not guarantee immunity. As

a result, ACIP recommends that facilities consider recommending a dose of MMR to persons born before 1957 if there is no other evidence of immunity (such as serologic testing).

If a new employee in a health care setting cannot produce documentation of receiving any dose of MMR, what should be done?

Persons born in or after 1957 who work in health care facilities of any kind and cannot document prior vaccination should receive two doses of MMR separated by at least 4 weeks. Alternatively, serologic testing could determine if the person is immune to measles and rubella. Persons born before 1957 are generally considered immune to measles. However, ACIP recommends that at least one dose of MMR be considered for persons in this age group who do not have documentation of a measles-containing vaccination, history of physician-diagnosed measles, or laboratory evidence of measles and rubella immunity.

If a health care worker develops a rash and low-grade fever after MMR vaccine, is s/he infectious?

Approximately 5-15% of susceptible persons who receive MMR vaccine will develop a low-grade fever and/or mild rash 7-12 days after vaccination. However, the person is not infectious, and no special precautions (e.g., exclusion from work) need to be taken.

Which workers in the healthcare setting need hepatitis B vaccine?

The Occupational Safety and Health Administration (OSHA) requires that hepatitis B vaccine be offered to healthcare workers (HCWs) who have a reasonable expectation of being exposed to blood on the job. This requirement does not include HCWs who would not be expected to have occupational risk, such as receptionists, billing staff, and general office workers.

Is it safe for HCWs to be vaccinated during pregnancy?

Yes. Limited data indicate no apparent risk for adverse events to developing fetuses. Current hepatitis B vaccines contain noninfectious hepatitis B surface antigen (HBsAg) and should pose no risk to the fetus. If the mother is being vaccinated because she is at risk for hepatitis B virus (HBV) infection (e.g., a HCW, a person with a sexually transmitted disease, an injection drug user, multiple sex partners), vaccination should be initiated as soon as her risk factor is identified during the pregnancy. If not vaccinated, a pregnant woman may contract an HBV infection, which might result in severe disease for the mother and chronic infection for the newborn. In addition, giving hepatitis B vaccine to the mother is not a contraindication to breastfeeding.

Which HCWs need serologic testing after receiving 3 doses of hepatitis B vaccine?

All HCWs who have a reasonable risk of exposure to blood or body fluids containing blood (e.g., HCWs with direct patient contact, HCWs who have the risk of needlestick or sharps injury, laboratory workers who draw or test blood) should have postvaccination testing for antibody to hepatitis B surface antigen (anti-HBs). Postvaccination testing should be done 1-2 months after the last dose of vaccine.

What should be done if a HCW's postvaccination anti-HBs test is negative 1-2 months after the last dose of vaccine?

Repeat the 3-dose series and test for anti-HBs 1-2 months after the last dose of vaccine. If the HCW is still negative after a second vaccine series, the HCW is considered a non-responder to hepatitis B vaccination. HCWs who do not respond to vaccination should be tested for HBsAg to determine if they have chronic HBV infection. If the HBsAg test is positive, the person should receive appropriate counseling and medical management. Persons who test negative for HBsAg should be considered susceptible to HBV infection and should be counseled about precautions to prevent HBV infection and the need to obtain hepatitis B immune globulin (HBIG) prophylaxis for any known or likely exposure to HBsAg-positive blood.

How often should I test HCWs after they've received the hepatitis B vaccine series to make sure they're protected?

For immune competent HCWs, periodic testing or periodic boosting is not needed. Postvaccination testing (anti-HBs) should be done 1-2 months after the last dose of hepatitis B vaccine. If adequate anti-HBs (at least 10 mIU/mL) is present, nothing more needs to be done. If postvaccination testing is less than 10 mIU/mL, the vaccine series should be repeated and anti-HBs testing done, 1-2 months after the last dose of the second series. This information should be recorded in the HCW's employee health record.

Should a HCW who performs invasive procedures and who once had a positive anti-HBs result be revaccinated if the anti-HBs titer is rechecked and is less than 10 mIU/mL?

No. Immune competent persons known to have responded to hepatitis B vaccination do not require additional passive or active immunization. Postvaccination testing should be done 1-2 months after the original vaccine series is completed. In this scenario, the initial postvaccination testing showed that the HCW was protected. Substantial evidence suggests that adults who respond to hepatitis B vaccination (anti-HBs of at least 10 mIU/mL) are protected from chronic HBV infection for as long as 23 years, even if there is no detectable anti-HBs currently. Only immunocompromised persons (e.g., hemodialysis patients, some HIV-positive persons) need to have anti-HBs testing and booster doses of vaccine to maintain their protective anti-HBs concentrations of at least 10 mIU/mL

How should a vaccinated HCW with an unknown anti-HBs response be managed if they have a percutaneous or mucosal exposure to blood or body fluids from an HBsAg-positive source?

This person should be tested for anti-HBs as soon as possible after exposure. If the anti-HBs concentration is at least 10 mIU/mL, no further treatment is needed. If the anti-HBs concentration is less than 10 mIU/mL, HBIG and one dose of hepatitis B vaccine should be administered. Prior to administering the HBIG and vaccine, blood should be drawn for a baseline HBsAg test. Subsequently, in 3-6 months, an additional anti-HBs and an HBsAg test should be performed. If the HBsAg is positive, the person is infected and should be referred for medical evaluation. If the anti-HBs result is at least 10 mIU/mL, the person is seroprotected. It is necessary to do postvaccination testing later than the usual

recommended time frame because anti-HBs from HBIG might be detected if testing is done any earlier. The postvaccination test result should be recorded in the person's health record.

If an employee does not respond to hepatitis B vaccination (employee has had two full series of hepatitis B vaccine), does s/he need to be removed from activities that expose her/him to bloodborne pathogens? Does the employer have a responsibility in this area beyond providing the vaccine?

There are no regulations that require removal from job situations where exposure to bloodborne pathogens could occur; this is an individual policy decision within the organization. OSHA regulations require that employees in jobs where there is a reasonable risk of exposure to blood be offered hepatitis B vaccine. In addition, the regulation states that adequate personal protective equipment be provided and that standard precautions be followed. Check your state OSHA regulations regarding additional requirements. If there are no state OSHA regulations, federal OSHA regulations should be followed. Adequate documentation should be placed in the employee record regarding non-response to vaccination. HCWs who do not respond to vaccination should be tested for HBsAg to determine if they have chronic HBV infection. If the HBsAg test is positive, the person should receive appropriate counseling and medical management. Persons who test negative for HBsAg should be considered susceptible to HBV infection and should be counseled about precautions to prevent HBV infection and the need to obtain HBIG prophylaxis for any known or likely exposure to HBsAg-positive blood.

How soon after a dose of Td can a healthcare worker receive a dose of Tdap, in order to protect vulnerable infants and others?

If they have not previously received Tdap, healthcare personnel in hospitals and ambulatory care settings who have direct patient contact should receive a single dose of Tdap as soon as feasible and without regard to the dosing interval since the last Td. There is no "minimum interval" one needs to wait between receiving Td and Tdap when it is given to protect infants or other vulnerable patients.

Can Tdap be given to a pregnant teen or woman?

ACIP and AAP have different recommendations on the use of Tdap in pregnancy. ACIP voted to recommend using Td (not Tdap) during pregnancy if the woman is due for a routine tetanus booster. If she is not due for the routine booster (i.e., the previous Td booster was given within the preceding 10 years), the new mother should receive Tdap immediately postpartum. However there are situations when a clinician can consider the use of Tdap for a pregnant woman, such as if there is a risk of exposure because of a pertussis outbreak. Tdap is not contraindicated for pregnant women. The infant's other household contacts ages 10 through 64 years should also receive 1 dose of Tdap, if not already given. AAP has endorsed preferential use of the Tdap vaccine during pregnancy in adolescents who were not vaccinated at the visit at age 11-12 years *(Pediatrics* 2006; 117:965-78). Providers can follow either the AAP or ACIP recommendation.

Vaccination of healthcare personnel (HCP):

HCP in hospitals and ambulatory care settings who have direct patient contact should receive a single dose of Tdap as soon as feasible if they have not previously received Tdap. An interval as short as 2 years from the last dose of Td is recommended. Other HCP should receive a single dose of Tdap according to the routine recommendation; they are encouraged also to receive Tdap at an interval as short as 2 years. Priority should be given to vaccination of HCP who have direct contact with infants younger than age 12 months. Hospitals and ambulatory-care facilities should provide Tdap for HCP and use approaches that maximize vaccination rates.